WHAT WE CLAIM IS:

1. In a method for evaluating measured data by digitalizing said measured data in an analog-to-digital converter so as to obtain digitalized measured data and disseminating said digitalized measured data to a digital signal processor for processing said digitalized measured data by computation and outputting respective measured values, the improvement comprising

providing a shift register between said analog-to-digital converter and said digital signal processor,

intermediately storing said digitalized measured data in said shift register until completion of the acquisition of all measured data to be processed simultaneously,

reading out together all measured data to be processed simultaneously, and

executing processing of said digitalized measured data by computation in said digital signal processor for obtaining respective measured values.

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2. In a device to be used for obtaining measured values by evaluating measured data and of the type including at least one analog-to-digital converter configured to digitalize said measured data and a digital signal processor configured to process said measured data upon digitalization by computing respective measured values, the improvement comprising a shift register arranged between said at least one analog-to-digital

converter and said digital signal processor and configured to intermediately store said measured data upon digitalization until completion of the acquisition of all measured data to be processed simultaneously.

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- 3. A device as set forth in claim 2, wherein said shift register is designed as a FIFO memory.
- A method as set forth in claim 1, wherein said shift register is designed as a FIFO memory.